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Federal Communications Commission

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DISPATCHED BY **Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D. C. 20554**

In the Matter of)
)
Interconnection and Resale Obligations)
Pertaining to) CC Docket No. 94-54
Commercial Mobile Radio Services)

**SECOND REPORT AND ORDER
AND THIRD NOTICE OF PROPOSED RULEMAKING**

Adopted: June 27, 1996; Released: August 15, 1996

Comment Date: October 4, 1996

Reply Date: November 22, 1996

By the Commission: Commissioner Chong issuing a statement.

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I. INTRODUCTION AND EXECUTIVE SUMMARY

1. This Order continues our examination of issues concerning the offering of roaming services by commercial mobile radio service (CMRS) providers. We initiated this proceeding in a Notice of Proposed Rulemaking and Notice of Inquiry that addressed a broad array of CMRS regulatory issues, including roaming.¹ Subsequently, we refined our proposals concerning roaming in a second Notice of Proposed Rulemaking.² Our actions in this Order are taken to further the goals and requirements of the Communications Act of 1934, as amended,³ including the charge recently given to us by Congress to promote competition and reduce regulation in order to secure lower prices and higher quality services for American telecommunications consumers and encourage the rapid deployment of new telecommunications technologies.⁴

¹ See Equal Access and Interconnection Obligations Pertaining to Commercial Mobile Radio Services, CC Docket No. 94-54, Notice of Proposed Rule Making and Notice of Inquiry, 9 FCC Rcd 5408 (1994) (*NOI*).

² Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services, CC Docket No. 94-54, Second Notice of Proposed Rule Making, 10 FCC Rcd 10666 (1995) (*Second NPRM*). The issues raised in the *Second NPRM* regarding carriers' obligation to permit unrestricted resale, see 10 FCC Rcd at 10707-12, were addressed in Interconnection and Resale Obligations Pertaining to Commercial Mobile Radio Services, CC Docket No. 94-54, First Report and Order, FCC 96-263 (released July 12, 1996) (*Resale Order*). We do not address in this Order other issues raised in the *Second NPRM*, including reseller switch interconnection, see 10 FCC Rcd at 10712-14, and number transferability, *id.* at 10712. We intend to address these issues in the near future.

³ 47 U.S.C. §§ 151 *et seq.* (the "Communications Act" or the "Act").

⁴ See generally Telecommunications Act of 1996, Pub. L. No. 104-104, 110 Stat. 56 (1996).

2. Our principal decisions, based on the record compiled in response to the *Second NPRM*,⁵ are as follows. First, we conclude that the availability of roaming on broadband wireless networks is important to the development of nationwide, ubiquitous, and competitive wireless voice telecommunications, and that, during the period in which broadband personal communications services (PCS) systems are being built, market forces alone may not be sufficient to cause roaming to become widely available. Therefore, we expand the scope of our existing "manual" roaming rule, which requires cellular carriers to serve individual roamers, *see* 47 C.F.R. § 22.901, to include other CMRS providers that offer comparable competitive mobile telephony services. As a result of this action, cellular, broadband PCS, and certain specialized mobile radio (hereinafter "covered SMR") carriers⁶ must, as a condition of their licenses, provide service to any individual roamer whose handset is technically capable of accessing their network. Second, we seek comment on whether we should define cellular, broadband PCS and covered SMR providers' obligations to include the provision of "automatic" roaming service to other carriers (*i.e.*, carrier-to-carrier roaming service). Since market forces should eliminate the need for any explicit roaming regulations once broadband PCS licensees have built out their networks, our consideration of automatic roaming issues is grounded in a belief that any action we might take would sunset five years after the last group of initial licenses for currently allotted broadband PCS spectrum is awarded. In addition, we seek comment on whether our manual roaming rule should be subject to a similar sunset.

II. ROAMING

A. Introduction

1. Regulatory Background

3. "Roaming" occurs when the subscriber of one CMRS provider utilizes the facilities of another CMRS provider with which the subscriber has no direct pre-existing service or financial relationship to place an outgoing call, to receive an incoming call, or to continue an in-progress call.⁷ Typically, although not always, roaming occurs when the subscriber is physically located outside the service area of the provider to which he or she subscribes. Under Section 22.901 of our rules, cellular system licensees "must provide cellular mobile

⁵ A list of the parties filing comments and reply comments in response to our *Second NPRM* is contained in Appendix A.

⁶ *See* para. 12, *infra*, for a definition of "covered SMR" providers.

⁷ *See* 47 C.F.R. § 22.99 (defining "roamer" as a "mobile station receiving service from a station or system in the Public Mobile Services other than one to which it is a subscriber").

radiotelephone service upon request to all cellular subscribers in good standing, including roamers, while such subscribers are located within any portion of the authorized cellular geographic service area . . . where facilities have been constructed and service to subscribers has commenced."⁸

4. In the *NOI*, we requested comment regarding whether the obligation to permit roaming should be extended to all CMRS, what regulatory standards are appropriate to promote roaming, and what technical issues or requirements are implicated.⁹ In the *Second NPRM*, we tentatively concluded that roaming service is important to the development of a seamless CMRS "network of networks." We also tentatively concluded, based on the available evidence, that uncertainties concerning the technological development of non-cellular CMRS and the likelihood that market forces would adequately promote the availability of roaming counseled regulatory caution. Therefore, we proposed, in lieu of a rule, to monitor the development of roaming service and to intercede as appropriate. In addition, we requested comment on several other issues related to roaming, including the technical feasibility of cross-service roaming, the necessity of direct physical interconnection to facilitate roaming, the necessity of access to subscriber databases and any privacy or proprietary issues raised, and the technical and contractual arrangements that are currently used to provide roaming in the cellular service.¹⁰

2. Technical Background

5. Roaming service can be provided through a variety of technical and contractual arrangements. The most rudimentary form of roaming is manual roaming. Manual roaming is the only form of roaming that is available when there is no pre-existing contractual relationship between a subscriber, or her home system, and the system on which she wants to roam. In order to make or receive a call, a manual roamer must establish such a relationship. Typically, the roamer accomplishes this in the course of attempting to originate a call by giving a valid credit card number to the carrier providing service.¹¹

6. Automatic roaming means that the roaming subscriber is able to originate or

⁸ 47 C.F.R. § 22.901.

⁹ *NOI*, 9 FCC Rcd at 5464-66.

¹⁰ *Second NPRM*, 10 FCC Rcd at 10693-94.

¹¹ See AT&T Comments at 24; RCC Comments at 5; Declaration of Bruce M. Owen, filed as Exhibit 1 to AT&T Comments, at 24 (Owen Declaration); Pacific Bell Mobile Services, "The Commission Should Adopt a Roaming Rule," filed as an attachment to Letter from Gina Harrison, Director, Federal Regulatory Affairs, Pacific Telesis Group - Washington to William F. Caton, Acting Secretary, FCC, dated Mar. 19, 1996, at 13 (March 1996 Pacific *Ex Parte*).

terminate a call without taking any action other than turning on her telephone.¹² This form of roaming requires a contractual agreement between the home and roamed-on ("host") systems. Before a subscriber can complete an originating call under an automatic roaming arrangement, the host system first identifies the subscriber's home carrier by means of the subscriber's telephone number, verifies that it has an agreement with that carrier, and queries the carrier to verify that the subscriber's account is current (and in some instances to obtain other information about the subscriber, such as her preferred service features).¹³ To provide automatic terminating service, the host system typically sends a signal to the home carrier as soon as the subscriber enters its service area with the phone turned on so that the home system will know where to direct calls.¹⁴ Although many roaming agreements between carriers allow for automatic originating and terminating access, others involve a form of manual terminating service whereby the subscriber must make an affirmative act to register with the host system, such as punching in a code, before she can receive calls.

7. The basic technical requirement for either manual or automatic roaming is that the subscriber have a handset technically capable of accessing the host system. Unless subscribers are willing to carry two telephones, therefore, roaming between cellular and other CMRS services will require subscribers to use handsets that are dual band, and perhaps dual mode as well.¹⁵ Furthermore, in order for the switches of systems using different technologies to communicate most efficiently when providing automatic roaming, new protocol conversion standards may in some instances need to be devised.¹⁶ Neither originating nor terminating roaming requires direct interconnection of carriers' switches.¹⁷ Interconnection does appear to be necessary, however, if carriers desire to allow their customers to continue calls in progress when they enter another carrier's service area. Such

¹² This form of roaming is sometimes referred to as "seamless" roaming. However, some parties understand "seamless" roaming to include handoff of calls in progress as one moves from the service area of one provider to another. For the sake of clarity, we will use the term "automatic" roaming to refer to origination and termination of calls without the need for any special facilitating action by the subscriber.

¹³ See AirTouch Comments at 10-11; SBMS Comments at 14-17; Sprint Venture Comments at 12-14; March 1996 Pacific *Ex Parte* at 4-5.

¹⁴ See SBMS Comments at 16; Sprint Venture Comments at 13; March 1996 Pacific *Ex Parte* at 6-7.

¹⁵ See AirTouch Comments at 11-12; APC Comments at 8-9; PCS Primeco Comments at 8; SBMS Comments at 17; Sprint Venture Comments at 19; Western Comments at 6; Pacific Reply Comments at 4.

¹⁶ See Comcast Comments at 23; GTE Comments at 14; SBMS Comments at 17; Sprint Venture Comments at 19; March 1996 Pacific *Ex Parte* at 8-9.

¹⁷ See Comcast Comments at 23; PCIA Comments at 8; RCC Comments at 6; SBMS Comments at 18; Sprint Venture Comments at 14; Pacific Reply Comments at 3.

interconnection may be technically and administratively complex.¹⁸

B. Comments

8. Commenters generally agree with our tentative conclusion in the *Second NPRM* that ubiquitous roaming on cellular and broadband PCS systems is important to the development of a seamless, nationwide "network of networks."¹⁹ Commenters differ, however, over whether regulation is necessary or appropriate to promote the availability of roaming. Some commenters argue that regulation is unnecessary because CMRS providers have a strong economic incentive to enter into reciprocal roaming agreements, both so that they can offer roaming to their own subscribers and to realize revenues from roamers in their service areas. Providers will have no anticompetitive incentive to deny roaming agreements, they contend, because providers operating in different service areas do not directly compete with each other. Furthermore, they state, cellular providers affiliated with PCS licensees will not deny roaming opportunities to other PCS providers because such cellular providers will want to preserve roaming capability for their own customers. Even if some cellular providers do limit roaming, these commenters claim, PCS providers will have ample incentive to offer agreements to each other. Several commenters also argue that roaming arrangements occurred in the cellular service without substantial regulatory intervention. Thus, these commenters conclude, competition in the CMRS market will ensure that automatic roaming becomes available wherever there is sufficient consumer demand to justify its provision.²⁰ In addition, some commenters argue, roaming regulation could exact significant network-related costs, especially for smaller CMRS providers, because: (1) roaming arrangements may be technically infeasible or unreasonably costly under some circumstances, and (2) a roaming requirement might obstruct or discourage buildout of networks and technical innovation.²¹

¹⁸ See Sprint Venture Comments at 14-15; Pacific Reply Comments at 2-3.

¹⁹ See, e.g., NYNEX Comments at 6-7; RCA Comments at 7; Sprint Venture Comments at 18; Vanguard Comments at 8-10; Cable & Wireless Reply Comments at 11.

²⁰ See AirTouch Comments at 10-12; AMTA Comments at 6; Ameritech Comments at 5; AT&T Comments at 23-24; Bell Atlantic Comments at 8; BellSouth Comments at 5; CTIA Comments at 21; Frontier Comments at 5-6; GTE Comments at 13-14; New Par Comments at 20-21; PCS Primeco Comments at 8-9; PCIA Comments at 7-8; RCA Comments at 7; RCC Comments at 4; SBMS Comments at 13-14; Vanguard Comments at 8-9; Western Comments at 6-7; AT&T Reply Comments at 12-13; BellSouth Reply Comments at 14-15; GTE Reply Comments at 12-13; Vanguard Reply Comments at 3-4; Owen Declaration at 24-25.

²¹ See AT&T Comments at 24-25; Bell Atlantic Comments at 8; Frontier Comments at 6; GTE Comments at 15-16; New Par Comments at 21; Nextel Comments at 5-7; NYNEX Comments at 7; PCS Primeco Comments at 7-8; PCIA Comments at 8 n.14; RCC Comments at 5; Western Comments at 7; BellSouth Reply Comments at 14; PCS Primeco Reply Comments at 5; Vanguard Reply Comments at 3 n.6; Owen Declaration at 26; Ex Parte Submission of AT&T Wireless, Inc., filed as attachment to Letter from Cathleen A. Massey, Vice President - External Affairs, AT&T Wireless Services, Inc. to William F. Caton, Acting Secretary, FCC, dated Jan. 26, 1996,

9. Other commenters argue that market forces alone will not ensure the widespread availability of roaming arrangements, and that roaming regulation is necessary to ensure the establishment of effective competition between incumbent cellular providers and new PCS and covered SMR competitors. These commenters contend that new CMRS entrants will need to offer automatic roaming in order to make their services attractive to consumers.²² For example, Comcast states that cellular carriers often have not offered each other nondiscriminatory roaming agreements, but rather have unreasonably favored their own affiliates.²³ Furthermore, they argue, there exists today a far stronger anticompetitive incentive for established carriers to deny roaming capability to new entrants than existed during the development of cellular service because the established carriers already have widespread roaming capability, which they can claim as a distinguishing feature of their service.²⁴ In order to promote competition, commenters support the idea of prohibiting CMRS providers from discriminating with respect to the availability or terms of roaming agreements.²⁵ Commenters further state that we should not mandate particular technology or standards, and that the burden of developing and implementing any technology necessary to permit roaming should lie with the party seeking a roaming agreement.²⁶

C. Decision

10. At the outset, we note that Sections 201(b) and 202(a) of the Communications Act apply to CMRS providers and govern the provision of common carrier communications

at 10-12 (*AT&T Ex Parte*).

²² See APC Comments at 7; Cellnet of Ohio Comments at 3; Pacific Comments at 4; Sprint Venture Comments at 15; Cable & Wireless Reply Comments at 11; Pacific Reply Comments at 8-9; U.S. Airwaves Reply Comments at 10; Affidavit of Professor Jerry A. Hausman, Attachment to Pacific Reply Comments, at 3-5 (Hausman Affidavit).

²³ See Comcast Comments at 21-22.

²⁴ See APC Comments at 7; Pacific Comments at 5-6; Pacific Reply Comments at 6; Hausman Affidavit at 6-8; Statement of Jerry A. Hausman, filed as an attachment to Letter from Gina Harrison, Director, Federal Regulatory Relations, Pacific Telesis Group - Washington, to William F. Caton, Acting Secretary, FCC, dated Mar. 19, 1996, at 2-3 (Hausman Statement); "PCS Roaming: Critical to the Success of CMRS Competition," filed as Attachment to Letter from Eric W. DeSilva, attorney for PCIA, to William F. Caton, Acting Secretary, FCC, dated Mar. 21, 1996, at 2-3 (March 1996 PCIA *Ex Parte*); see also Vanguard Comments at 9-10; Hausman Statement at 2-3.

²⁵ See APC Comments at 7-8; Comcast Comments at 20-22; Pacific Comments at 3; Sprint Venture Comments at 15-18; U.S. Airwaves Reply Comments at 11; March 1996 PCIA *Ex Parte* at 4.

²⁶ See APC Comments at 8-9; Sprint Venture Comments at 19; Pacific Reply Comments at 4-5; Hausman Affidavit at 6; March 1996 PCIA *Ex Parte* at 3.

services.²⁷ We reject BellSouth's argument that roaming is merely a billing arrangement and not a common carrier service.²⁸ We have held that certain billing and collection services offered by local exchange carriers (LECs) to interexchange carriers (IXCs) are not common carriage because such services do "not allow customers of the service . . . to communicate or transmit intelligence of their own design and choosing," and because such services can be offered by non-communications entities such as credit card companies.²⁹ Roaming capability, by contrast, gives end users access to a foreign network in order to communicate messages of their own choosing. We therefore agree with those commenters that argue that roaming is a common carrier service.³⁰ We also note that we have authority to impose a roaming requirement in the public interest pursuant to our license conditioning authority under Sections 303(r) and 309 of the Act.³¹

11. The record submitted in response to the *Second NPRM* demonstrates that roaming capability is widely available to cellular subscribers, is highly valued by those subscribers, and is one of the industry's fastest growing sources of revenue. For example, roaming income accounted for 13.6 percent of cellular industry revenues during the last six months of 1994 and was growing at 42 percent per year, despite the fact that many carriers charged premium prices to roamers.³² Furthermore, when APC in the Washington/Baltimore area became the first licensee in the nation to offer broadband PCS service, its largest cellular competitor concentrated its advertising campaign on the unavailability of roaming to APC's customers.³³ Such activity indicates that roaming capability may be a key competitive consideration in the

²⁷ See 47 U.S.C. § 332(c)(1) (CMRS providers are subject to duties of common carriers, including Sections 201 and 202).

²⁸ BellSouth Reply Comments at 15.

²⁹ Detariffing of Billing and Collection Services, CC Docket No. 85-88, Report and Order, 102 F.C.C.2d 1150, *on recon.*, 1 FCC Rcd 445 (1986).

³⁰ See APC Comments at 8; Sprint Venture Comments at 15-16; CTIA Reply Comments at 17-18; Pacific Reply Comments at 3-4; U.S. Airwaves Reply Comments at 11. As commenters point out, roaming satisfies the statutory elements of CMRS, and is thus a common carrier service, because it is (1) an interconnected mobile service (2) offered for profit (3) in such a manner as to be available to a substantial portion of the public. 47 U.S.C. § 332(d)(1).

³¹ See *WBEN, Inc. v. United States*, 396 F.2d 601, 617-19 (2d Cir.), *cert. denied sub nom. WBEN, Inc. v. FCC*, 393 U.S. 914 (1968); *Upjohn Co. v. FDA*, 811 F.2d 1583 (D.C. Cir. 1987); *Committee for Effective Cellular Rules v. FCC*, 53 F.3d 1309, 1318-20 (D.C. Cir. 1995).

³² Hausman Affidavit at 3-4.

³³ See, e.g., Washington Post, Nov. 29, 1995, at B5; see also Hausman Statement at 3-4; March 1996 PCIA *Ex Parte* at 2.

wireless marketplace, and that newer entrants may be at a competitive disadvantage vis-a-vis incumbent wireless carriers if their subscribers have no ability to roam on other networks. Having said that, we recognize that roaming regulation may impose significant costs and burdens on CMRS providers and that we should narrowly tailor our actions to avoid placing an undue burden on such providers.

12. Based on comments in the record and the experience of the first broadband PCS licensee to begin service, we conclude that the public interest will be served by extending our existing manual roaming rule, which is part of our cellular service rules,³⁴ to obligate all CMRS licensees competing in the mass market for real-time, two-way voice services and to protect the subscribers of all carriers offering such services. That group consists of cellular, broadband PCS and covered SMR providers. These "covered SMR providers" include two classes of SMR licensees. The first consists of 800 MHz and 900 MHz SMR licensees that hold geographic area licenses.³⁵ The second covers incumbent wide area SMR licensees, defined as licensees who have obtained extended implementation authorizations in the 800 MHz or 900 MHz SMR service, either by waiver or under Section 90.629 of our rules. Within each of these classes, "covered SMR providers" includes only licensees that offer real-time, two-way switched voice service that is interconnected with the public switched network, either on a stand-alone basis or packaged with other telecommunications services. This is the same group of SMR licensees to which we have applied our recently adopted rule governing restrictions on resale.³⁶

13. Under the rule that we adopt today, cellular, broadband PCS, and covered SMR licensees are required to provide manual roaming to any subscriber of any of these services who is using a handset that is technically capable of accessing the licensee's system. The rule does not require licensees to modify their systems in order to provide service to any end user. Some commenters argue that amending the existing rule in this manner is unnecessary because cellular systems cannot distinguish between a cellular subscriber using a cellular-only handset and a PCS subscriber using a dual-mode handset, and therefore the existing rule effectively protects PCS as well as cellular roamers.³⁷ As other commenters observe,

³⁴ See 47 C.F.R. § 22.901.

³⁵ The Commission is now in the process of issuing geographic area licenses in the 900 MHz service based on the results of the 900 MHz auction completed in April 1996. Auctioning of geographic area licenses in the 800 MHz SMR band will commence following the conclusion of our rulemaking in PR Docket No. 930144.

³⁶ See *Resale Order* at para. 19 & Appendix C.

³⁷ See CTIA Comments at 19-20; AT&T Reply Comments at 11.

however, the current rule on its face extends only to cellular subscribers.³⁸ To avoid any uncertainty, our action today clarifies that any subscriber to any covered service with a technically cellular-compatible handset has the same right as a cellular subscriber to manually roam on cellular systems. Furthermore, our existing rule does not obligate broadband PCS and covered SMR licensees. We are applying the manual roaming rule to these categories of CMRS licensees in order to ensure regulatory parity and to promote competition in the wireless market by enhancing all such carriers' abilities to compete. Since our action today furthers the public interest by facilitating the widespread availability of roaming, we make compliance with the rule we adopt today a condition of cellular, broadband PCS and covered SMR licenses under Sections 303(r) and 309 of the Act.

14. By contrast, the record does not establish that ubiquitous roaming capability is important to the competitive success or utility of mobile services other than those offered by cellular, broadband PCS and covered SMR providers.³⁹ We therefore conclude that our action today shall be limited to such licensees. In particular, because they do not compete substantially with cellular and broadband PCS providers, local SMR licensees offering mainly dispatch services to specialized customers in a non-cellular system configuration, as well as licensees offering only data, one-way, or stored voice services on an interconnected basis, are not covered by the roaming rule we adopt today. We believe that the costs of applying the roaming rule to their operations would outweigh the benefits. Not the least of these costs is that applying the policy might give them an incentive to eliminate their interconnection with the public switched network, which would not be in the public interest.⁴⁰ Of course, any SMR provider that is not interconnected to the public switched network does not offer CMRS, and therefore is not subject to the roaming rule. Allegations that particular practices by non-covered CMRS providers are unjust, unreasonable or otherwise in violation of the Communications Act would be grounds for complaint under Section 208 of that Act.

III. FURTHER NOTICE OF PROPOSED RULEMAKING

A. Carrier-to-Carrier Roaming

15. Our previous notice of proposed rulemaking concerning roaming was released more than one year ago. At that point, our initial broadband PCS auctions had just been

³⁸ See BellSouth Comments at 5; GTE Comments at 15; Pacific Comments at 4; RCC Comments at 5; Pacific Reply Comments at 6-7; U.S. Airwaves Reply Comments at 11; March 1996 PCIA *Ex Parte* at 4.

³⁹ See In-Flight Comments at 4-5 (arguing that roaming is inapplicable to air-to-ground service because all of the licensees provide nationwide coverage).

⁴⁰ See AMTA Comments at 6-7.

conducted and licenses were not yet issued. The business plans of companies entering the market for broadband PCS services were in their formative stages. No dual band or dual mode phones were yet available, and no broadband PCS provider had experience trying to negotiate a roaming agreement. The comments we received largely reflected the nascent nature of the market's development. Most commenters supported our tentative decision to leave roaming to market forces while monitoring its progress. Relatively few commenters (mostly new entrants) advocated the need for regulation that would promote automatic roaming. Since the record predated the operation of nearly all broadband PCS systems, it could not demonstrate the failure of the market to ensure the widespread availability of automatic roaming arrangements. Overall, the record yielded by the initial comments was inconclusive. In the interim, market activity has accelerated. Several broadband PCS systems are now operational, and others are expected to become so in short order. Dual mode phones will be available in a few months.⁴¹ The technical standards necessary to render cellular and certain PCS network technologies interoperable for automatic roaming purposes appear to have been developed.⁴² We understand that roaming negotiations between PCS and cellular carriers have begun in some markets.

16. The inconclusiveness of the original record does not present a basis for us to adopt automatic roaming rules. The record does persuade us, however, of the need to seek up-to-date information on events of the past year concerning automatic roaming issues. Evidence indicates that the views of interested parties on automatic roaming issues have evolved significantly since our last action on such issues. Entities that have obtained broadband PCS licenses or recently submitted winning bids in broadband PCS auctions have urged us to examine automatic roaming issues more thoroughly.⁴³ Another, more established, entity in the wireless marketplace recently made a detailed presentation of its view that Commission action on automatic roaming would be premature and could harm the

⁴¹ See Letter from Mark J. Golden, Vice President, Industry Relations, PCIA to Michael Wack, Deputy Chief, Policy Division, Wireless Telecommunications Bureau, dated June 20, 1996 (June 1996 PCIA *Ex Parte*) at Attachment 2 (press report of manufacturer's announcement of the availability of a dual mode PCS/cellular handset in July-September 1996 time frame).

⁴² See *id.* at Attachment 1 (TIA Document PN-3212, "Internetworking/Interoperability Between DCS-1900 and IS-41 Based MAPs for 1800 MHz Personal Communications Systems"); "Position of the North American Interest Group," filed as Attachment to Letter from Gary K. Jones, Omnipoint Corporation, to William F. Caton, Acting Secretary, FCC, dated June 18, 1996, at 3-9 (Omnipoint *Ex Parte*). The North American Interest Group is an organization comprised of member companies of the GSM MoU Association. *Id.* at 1 n.1.

⁴³ See, e.g., Omnipoint *Ex Parte* at 1 ("cellular carriers in the United States should negotiate in good faith with the licensed PCS carriers to accomplish PCS to cellular roaming"); Letter from Allen Salmasi, Chairman and Chief Executive Officer, NextWave Telecom, Inc., to William F. Caton, Acting Secretary, FCC, dated June 18, 1996 (recommending that the Commission refresh the record on automatic roaming issues and consider adopting guidelines that would require cellular and PCS providers to provide nondiscriminatory access to their networks but would not impose additional technical requirements or costs on such providers).

development of wireless services.⁴⁴ There also appears to have been a significant shifting of positions by some commenters.⁴⁵ In general, the record raises the question whether, during the broadband PCS buildout period, market conditions may create economic incentives for certain CMRS carriers to discriminate unreasonably in the provision of roaming, or to otherwise engage in unjust or unreasonable practices with regard to roaming.

17. Some commenters contend that the need to jump start competition by emerging wireless providers, especially PCS providers, is too great to rely on clarification of statutory obligations in after-the-fact adjudicatory proceedings, such as complaint proceedings under Section 208 of the Act.⁴⁶ Such commenters are arguing, essentially, that a proactive Commission posture toward roaming at this time, including defining in advance the obligations of licensees to provide automatic roaming, will promote competition and thereby eliminate the need for regulation in the long run. On the other hand, the record contains thoughtful arguments that the regulation of automatic roaming is unnecessary and may distort the development of wireless services.⁴⁷ Given the importance that we attach to ensuring the widespread availability of roaming, and the inconclusiveness of the current record, we conclude that we should request additional comment on whether it would serve the public interest to adopt rules governing the provision of automatic roaming service by CMRS providers to other CMRS providers.

18. Our consideration of automatic roaming issues is framed by three general questions. First, is there a need for Commission action? Second, if we are persuaded that regulation would serve the public interest, what specific action should be taken? Third, what are the disadvantages of such action, especially as to network costs and additional burdens on providers, particularly smaller providers?

19. Some commenters indicate that new entrants may need access to originating and terminating roaming agreements in order to begin competing immediately and effectively with their relatively more established counterparts, and that market forces alone may not ensure

⁴⁴ See Letter from Kathleen Q. Abernathy, Vice President, Federal Regulatory, AirTouch Communications, to William F. Caton, Acting Secretary, FCC, dated June 20, 1996 (June 20, 1996 AirTouch *Ex Parte*).

⁴⁵ E.g., compare PCIA Comments at 7-9 (Commission action on roaming is undesirable) with June 1996 PCIA *Ex Parte* at 2 (cellular carriers should not be permitted to treat PCS carriers differently than cellular carriers); compare Pacific Comments at 3 (Commission action on roaming is necessary) with Letter from Gina Harrison, Director, Federal Regulatory Relations, Pacific Telesis Group - Washington, to William F. Caton, Acting Secretary, FCC, dated June 25, 1996 (June 1996 Pacific *Ex Parte*) (informing Commission that Pacific has "ceased actively urging the Commission to adopt a mandatory roaming rule").

⁴⁶ 47 U.S.C. § 208.

⁴⁷ See, e.g., Owen Declaration at 24-26; June 20, 1996 AirTouch *Ex Parte*.

that such arrangements will be widely available in the near term. They claim that incumbent CMRS providers have the market power and the economic incentive to deny roaming agreements to new entrants.⁴⁸ On the other hand, AT&T argues that this incentive exists only when both A and B Block cellular licensees in a market also hold cellular licenses in a PCS provider's home market, and that such dual overlap occurs only rarely.⁴⁹ Carriers also argue that they have strong incentives to enter into roaming agreements to get revenues. We note as well that the geographic scope of broadband PCS licenses may reduce the importance of roaming to ensuring the ability of PCS providers to compete. Most roaming appears to occur in adjacent markets.⁵⁰ The relatively limited geographic scope of cellular service areas prompted cellular carriers to compete for customers based on the extent of their roaming networks and their roaming rates and features. In contrast, broadband PCS license areas are significantly larger than cellular. Accordingly, broadband PCS customers can go much further distances without roaming. This raises the question of whether broadband PCS providers need to be able to offer automatic roaming arrangements in order to be able to compete. We seek comment on this issue.

20. We also seek comment on whether incumbent wireless providers have an incentive to, and will, deny roaming agreements to other providers. We note that there is no specific evidence in the record of unreasonable discrimination against PCS licensees concerning the provision of roaming. To the contrary, there is evidence that some PCS providers believe they will be able to negotiate roaming agreements successfully without an automatic roaming rule.⁵¹ However, it is still early in the process. Many PCS licensees are just starting to construct their systems. Dual-mode handsets are just becoming available. We seek evidence of the denial of agreements, or unreasonable discrimination in the provision of agreements, to the extent it exists. We also seek comment on the likelihood of discrimination among wireless carriers belonging to partnerships, joint ventures, and other alliances among cellular carriers. We seek comment on whether the geographic extent of a carrier's license holdings (in particular, carriers whose cellular and/or PCS holdings give them essentially nationwide, facilities-based operating "footprints") affects its incentive to enter into roaming agreements with smaller competitors in a way that merits a roaming requirement.⁵² We seek

⁴⁸ See, e.g., APC Comments at 7; Hausman Affidavit at 6-8; March 1996 PCIA *Ex Parte* at 2-3.

⁴⁹ AT&T *Ex Parte* at 6-8 (dual overlap occurs in only 3.2% of market pairs involving top 30 cellular markets, and 4.0% of market pairs involving top 50 cellular markets).

⁵⁰ See Letter from Kathleen Q. Abernathy, Vice President, Federal Regulatory, AirTouch Communications, to William F. Caton, Acting Secretary, FCC, dated June 24, 1996, at Attachment (calculation showing that over 60 percent of AirTouch subscribers' roaming minutes of use occurred in adjacent markets).

⁵¹ See June 1996 Pacific *Ex Parte*.

⁵² See Vanguard Comments at 9-10; Hausman Statement at 2-3.

comment, too, on whether requiring carriers to enter into roaming agreements will affect the value of these carriers' nationwide footprints.

21. We seek comment on whether new entrants currently have viable options to obtain automatic roaming if incumbent cellular providers unreasonably deny such agreements. We note that although the deployment of multiple CMRS networks will, in the long run, increase the number of parties with which roaming agreements can be obtained in any area, such networks will not be widely available during the construction period of broadband PCS. We seek comment on the timing of such construction period. AT&T argues that, to the extent this is a problem at all, a PCS carrier can obtain roaming service during the buildout period in any market by entering into a contractual agreement with a cellular carrier that already possesses a roaming agreement in that market.⁵³ Pacific responds that this approach may be administratively cumbersome, financially costly, and potentially inconsistent with the way roaming agreements are written.⁵⁴ We seek comment on whether AT&T's proposal for new entrants to "piggyback" on existing roaming arrangements is a reasonable means for carriers to obtain roaming capability.

22. To the extent that a basis for Commission action on automatic roaming is established, we seek comment on what the nature of that action should be. For example, should we, as a condition of license, require cellular, broadband PCS and covered SMR providers which enter into roaming agreements with other such providers to make like agreements available to similarly situated providers, where technically compatible handsets are being used, under nondiscriminatory rates, terms and conditions? Such a rule could prevent established carriers from entering into favorable roaming agreements only with selected providers and unreasonably denying such agreements to other similarly situated carriers. We clarify that such a rule would need to recognize that not all carriers are similarly situated.⁵⁵ Thus, such a rule need not require carriers to offer roaming agreements to all other carriers on the same terms and conditions, or even to offer roaming service to any carrier at all. We seek comment on the question of whether a covered CMRS provider that enters into a roaming agreement with another CMRS provider, however, should be required to offer like roaming agreements to other similarly situated providers upon reasonable request, without unreasonably discriminating on rates, terms, and conditions. We seek information and comment on the cost and burden of such a requirement.

23. Sprint Venture argues that providers should be permitted to offer roaming agreements to affiliates on different terms and conditions than to non-affiliates, reasoning that

⁵³ AT&T *Ex Parte* at 4-6; see also CTIA Comments at 20.

⁵⁴ Hausman Statement at 1; see also Pacific Reply Comments at 7.

⁵⁵ See RCA Comments at 7-8; RCC Comments at 5; Sprint Venture Comments at 16.

a roaming arrangement with an affiliate may be part of a greater agreement that affords other benefits to the provider.⁵⁶ Comcast, however, contends that major carriers' practice of offering discriminatorily favorable roaming rates to their affiliates has had a serious detrimental effect on the competitive position of carriers without extensive affiliations.⁵⁷ We seek comment on whether a carrier should be able to offer a more favorable rate to its affiliates. Similarly, we seek comment on whether a carrier should be able to offer a lower rate to a geographically proximate carrier. We seek comment on whether, as a general matter, it would serve the public interest to require carriers to make roaming service available to other carriers pursuant to one-way agreements under the same terms and conditions as under reciprocal agreements.⁵⁸ We seek comment on whether carriers should be permitted to refuse to enter into automatic roaming agreements with other facilities-based carriers in their markets. We seek comment on the advantages and disadvantages of a rule that would facilitate such "in-region" roaming. We seek comment on how in-region roaming may affect carriers' incentives to build out their networks. We also seek comment on how an exception that permits carriers to deny roaming agreements to in-region competitors could be administered, given the different geographic scope of cellular, broadband PCS and covered SMR licenses and operations.

24. Cellnet of Ohio claims that licensed, facilities-based carriers often discriminate against resellers with regard to the provision of roaming services, and typically will not enter into roaming agreements with resellers at all. Cellnet of Ohio argues that special rules are necessary to protect the right of resellers to enter into roaming agreements.⁵⁹ We do not propose to regulate the prices that carriers may charge resellers (or anyone else) for roaming, other than perhaps to prohibit discrimination in the prices charged to similarly situated carriers. We seek comment, however, on the additional costs and burdens that may be imposed on facilities-based carriers if they are required to separately enter into agreements with multiple resellers. We also seek comment on what, if any, benefits might be generated by enabling resellers to obtain roaming agreements.

25. One of the principal reasons for our tentative conclusion in the *Second NPRM* to monitor the development of roaming, rather than to propose rules at that time, was our concern that technical factors might render compliance with rules unduly costly for providers, or that our rules might inadvertently impede technological progress. Based on the comments that we received, we are not persuaded that a roaming rule would have such an effect unless

⁵⁶ Sprint Venture Comments at 16 n.23; see also BellSouth Reply Comments at 16; AT&T *Ex Parte* at 12.

⁵⁷ Comcast Comments at 21-22.

⁵⁸ See Sprint Venture Comments at 17 n.24.

⁵⁹ See Cellnet of Ohio Comments at 1-4; see also Cable & Wireless Reply Comments at 11.

it required direct interconnection of networks for the continuation of calls in progress. While handoff of calls in progress is available at this time in some cellular markets, it is much less widespread than originating and terminating access.⁶⁰ More importantly, the record does not indicate that broadband PCS or cellular providers need to be able to obtain "continuation of calls in progress" roaming capability in order to compete. For these reasons, we do not propose to require continuation of calls in progress.⁶¹ We seek additional technical information on this subject, and request comment on our analysis.

26. We seek comment on whether and how rules governing automatic roaming could be at odds with our general policy of allowing market forces, rather than regulation, to shape the development of wireless technologies. Our goal would be to make any rule we adopt consistent with such a policy. For example, under such a rule, if systems used different technologies or operated on different frequencies, we believe the carrier seeking to enable its subscribers to roam on another system would have the burden of developing and implementing any technology necessary to achieve that result. Furthermore, on the basis of the existing record, we believe any automatic roaming rule should be sufficiently flexible to permit a carrier to change its technology for legitimate business reasons (e.g., increasing capacity, spectrum efficiency, fraud control or the deployment of enhanced features) without any obligation to make its system accessible to roamers using different technologies, to the extent such a technology change is otherwise permitted by our rules.⁶² A carrier could not, however, introduce features into its system in order to obstruct service to roamers from systems using otherwise compatible technologies. We seek comment on this analysis.

27. Requiring non-discrimination in roaming agreements would, theoretically, generate certain benefits. However, there also are potential downsides to imposing an automatic roaming requirement. First, imposing such a requirement is inconsistent with our general policy of allowing market forces, rather than regulation, to shape the development of wireless services. Similarly, it could be viewed as at odds with Congress' goal in adopting the Telecommunications Act of 1996 of creating a "pro-competitive, de-regulatory national policy framework" for the United States telecommunications industry.⁶³ Does the importance of roaming and the potential for discrimination warrant a departure from our general competitive, deregulatory approach to wireless?

28. Second, as discussed above, cellular carriers compete vigorously on the basis of

⁶⁰ See Sprint Venture Comments at 15.

⁶¹ See Pacific Reply Comments at 2-3; see also Sprint Venture Comments at 18.

⁶² See, e.g., 47 C.F.R. § 22.933.

⁶³ S. Conf. Rep. No. 104-230, 104th Cong., 2d Sess. 1 (1996).

their roaming services. If we adopt an automatic roaming non-discrimination requirement, will carriers still be able to differentiate their roaming services? If they cannot, will this lessen competition in the wireless market? Also, what impact will a roaming requirement have on the development of new and improved roaming features?

29. Third, the imposition of an automatic roaming requirement could be costly and burdensome. There are currently approximately 1,400 cellular systems; we anticipate that broadband PCS and covered SMR providers, once licensed, will expand that number appreciably. What network and administrative costs are associated with entering into and maintaining roaming agreements among all such carriers? Will carriers, particularly smaller carriers, be able to absorb these costs or to recover them from their customers or other carriers? In this regard, we emphasize that we are not considering requiring carriers to upgrade their networks or implement any technology solely to enable roamers on different frequencies or with different air interface devices to complete calls on their systems.⁶⁴ Similarly, we are not considering requiring carriers to interconnect their networks to ensure that calls in progress can continue.⁶⁵

30. Finally, some commenters argue that a roaming requirement would unduly expose CMRS providers to losses due to fraud,⁶⁶ or that fraud cannot be controlled without direct interconnection of switches.⁶⁷ We seek further comment on these arguments. We note that cellular carriers have exercised various options to protect themselves under the existing manual roaming rule, such as requiring manual roamers to supply a valid credit card number.⁶⁸ We seek comment on whether similar protective measures would be available and equally effective if an automatic roaming rule is adopted. We also seek comment on whether carriers could include in their agreements with other carriers provisions to suspend roaming service in case of fraud, or other appropriate anti-fraud provisions, so long as they do so on a nondiscriminatory basis,⁶⁹ and whether a particular carrier that poses an unusually high risk of fraud (for example, a carrier that is located in an area where fraud is especially prevalent or that is known to have poor mechanisms for fraud control) could for that reason be differently treated with respect to the terms of a roaming agreement.

⁶⁴ See paras. 25-26, *supra*.

⁶⁵ See para. 25, *supra*.

⁶⁶ See AirTouch Comments at 13-14; Alltel Comments at 3; CTIA Comments at 21-22; RCC Comments at 5; Vanguard Comments at 9 n.22.

⁶⁷ See Nextel Comments at 7.

⁶⁸ See RCC Comments at 5.

⁶⁹ See Pacific Reply Comments at 8.

B. Sunset

31. Pacific's expert argues that roaming regulations should apply only for a transitional period. At the end of the transitional period, he states, the rules will become unnecessary because competition will have developed to the point that market forces will cause roaming to become available where it is economically efficient.⁷⁰

32. We agree with this analysis. We believe that once broadband PCS providers' buildout periods are completed, sufficient wireless capacity will be available in the market and, as a result, any roaming regulations, whether manual or automatic, likely will become superfluous. We believe that, given the availability of sufficient capacity, a carrier would not have either the incentive or the ability to unreasonably deny manual roaming to an individual subscriber, or to unreasonably refuse to enter into an automatic roaming agreement with another CMRS provider, because some other carrier in its service area would be willing to do so. We anticipate, due to our broadband PCS build-out requirement,⁷¹ that the market for cellular, broadband PCS and covered SMR services will be substantially competitive within five years after we complete the initial round of licensing broadband PCS providers. We therefore believe that any action taken concerning automatic roaming should sunset five years after we award the last group of initial licenses for currently allocated broadband PCS spectrum. We seek comment on this issue. We also seek comment on whether, for the same reasons, the manual roaming rule we adopt today also should sunset at the expiration of this five-year period. We note that this is the same sunset period that we recently adopted for our resale rule, and that the commencement of the five-year period will be announced by Public Notice.⁷²

C. Other Issues

33. In order to provide automatic roaming and adequately protect itself against fraud, a carrier would have to make arrangements with a subscriber's home system to verify the validity of the subscriber's account. In the *Second NPRM*, we noted that such arrangements, as well as other arrangements that may be necessary for subscribers to use special features while roaming, may implicate concerns relating to subscriber privacy and carrier control over proprietary information, and we requested comment on these issues.⁷³ Since that time, however, Congress has amended the Communications Act by adding a new Section 222,

⁷⁰ Hausman Affidavit at 3; *see also* Hausman Statement at 5.

⁷¹ *See* 47 C.F.R. § 24.203.

⁷² *See Resale Order* at para. 24.

⁷³ *Second NPRM*, 10 FCC Rcd at 10694.

which generally prohibits a carrier that obtains proprietary information from another carrier for purposes of providing a telecommunications service from using that information for any other purpose.⁷⁴ We tentatively conclude that the treatment of roaming-related access to proprietary information is governed by Section 222.⁷⁵ We seek comment on this analysis.

34. Bell Atlantic and Bell Atlantic NYNEX ask us to preempt state regulation of roaming.⁷⁶ Neither these parties nor any other commenters, however, supply any evidence that states have attempted to regulate roaming. We therefore see no basis for addressing the issue of preemption at this time. We note, however, that any automatic roaming rules would apply to both interstate and intrastate roaming if they were made a condition of license pursuant to Sections 303(r) and 309 of the Act. We further note that the states are preempted by statute from any regulation of intrastate roaming that would constitute the regulation of CMRS entry or rates.⁷⁷ We seek comment on this analysis.

35. Finally, Comcast proposes that we facilitate interoperability among CMRS systems by implementing government-industry joint studies through the Office of Engineering and Technology.⁷⁸ Comcast's proposal is beyond the scope of this proceeding, and we do not address it herein. We plan to address issues of interconnectivity and interoperability generally in a rulemaking proceeding that we will commence in the near future to implement Section 256 of the Communications Act.⁷⁹

IV. CONCLUSION

36. We conclude that, under current market conditions, the widespread availability of roaming capability on cellular, broadband PCS and covered SMR networks promotes the public interest in nationwide, ubiquitous, and competitive telecommunications service, and that, under current market conditions, market forces alone may not always produce such a result. We therefore require cellular, broadband PCS and covered SMR licensees to provide

⁷⁴ 47 U.S.C. § 222(b).

⁷⁵ See Implementation of the Telecommunications Act of 1996: Telecommunications Carriers' Use of Customer Proprietary Network Information and Other Customer Information, CC Docket No. 96-115, Notice of Proposed Rulemaking, FCC 96-221 (released May 17, 1996).

⁷⁶ Bell Atlantic Comments at 9; Bell Atlantic NYNEX Reply Comments at 4-6.

⁷⁷ 47 U.S.C. § 332(c)(3). A state may regulate CMRS rates if, upon the state's petition, we find that certain conditions are satisfied. *Id.* To date, we have not made any such finding for any state.

⁷⁸ Comcast Comments at 23 n.66.

⁷⁹ 47 U.S.C. § 256.

manual roaming service upon reasonable request to any subscriber to any of these services whose handset is capable of accessing their systems. We also seek comment on whether we should adopt rules governing cellular, broadband PCS and covered SMR providers' obligations to provide automatic roaming service.

V. PROCEDURAL MATTERS

A. Filing Procedures

37. Pursuant to applicable procedures set forth in Sections 1.415 and 1.419 of the Commission's Rules,⁸⁰ interested parties may file comments on or before October 4, 1996, and reply comments on or before November 22, 1996. To file formally in this proceeding, you must file an original and four copies of all comments, reply comments, and supporting comments. If you want each Commissioner to receive a personal copy of your comments, you must file an original plus eight copies. You should send comments and reply comments to the Office of the Secretary, Federal Communications Commission, Washington D.C. 20554. A copy of each filing also should be sent to International Transcription Service (ITS), 2100 M Street, N.W., Suite 140, Washington, D.C. 20037, (202) 857-3800, and to Rita McDonald, Federal Communications Commission, Wireless Telecommunications Bureau (WTB), Policy Division, 2025 M Street, N.W., Room 5202, Washington, D.C. 20554. Comments and reply comments will be available for public inspection during regular business hours in the Reference Center of the Federal Communications Commission, 1919 M Street, N.W., Room 239, Washington, D.C. 20054.

38. Parties are encouraged to submit comments and reply comments on diskette. Such diskette submissions would be in addition to and not a substitute for the formal filing requirements presented above. Parties submitting diskettes should submit them to Rita McDonald of the WTB Policy Division. Such a submission should be on a 3.5 inch diskette formatted in an IBM compatible form using WordPerfect 5.1 for Windows software. The diskette should be submitted in "read only" mode, and should be clearly labelled with the party's name, the proceeding (CC Docket No. 94-54), the type of pleading (comment or reply comment) and the date of submission.

39. This is a non-restricted notice and comment rulemaking proceeding. *Ex parte* presentations are permitted, except during the Sunshine Agenda period, provided they are disclosed as provided in Commission Rules.⁸¹

⁸⁰ 47 C.F.R. §§ 1.415, 1.419.

⁸¹ See generally 47 C.F.R. §§ 1.1202, 1.1203, 1.1206(a).

B. Regulatory Flexibility Act

40. As required by Sections 603 and 604 of the Regulatory Flexibility Act,⁸² the Commission has prepared a Final Regulatory Flexibility Analysis (FRFA) and an Initial Regulatory Flexibility Analysis (IRFA) of the expected impact on small entities of the rules adopted and proposed in this document. The FRFA and IRFA are set forth in Appendices B and C of this document, respectively. Written public comments are requested on the IRFA. These comments must be filed in accordance with the same filing deadlines as comments on the rest of the Notice, but they must have a separate and distinct heading designating them as responses to the Initial Regulatory Flexibility Analysis. The Secretary shall send a copy of this Notice of Proposed Rulemaking, including the Initial Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration in accordance with paragraph 603(a) of the Regulatory Flexibility Act.

C. Authority

41. This action is taken pursuant to Sections 1, 4(i), 4(j), 201, 202, 303(r), 309, 332, and 403 of the Communications Act, 47 U.S.C. §§ 151, 154(i), 154(j), 201, 202, 303(r), 309, 332, 403.

D. Further Information

42. For further information regarding this Order, contact Jeffrey Steinberg of the Wireless Telecommunications Bureau Policy Division, at 202-418-1310.

VI. ORDERING CLAUSES

43. Accordingly, IT IS ORDERED that the rule amendments appearing at Appendix D and discussed herein ARE ADOPTED and SHALL BE EFFECTIVE sixty days following publication in the Federal Register.

FEDERAL COMMUNICATIONS COMMISSION


William F. Caton
Acting Secretary

⁸² 5 U.S.C. §§ 603, 604.

APPENDIX A**Parties Filing Comments**

1. AirTouch Communications, Inc. (AirTouch)
2. All Cellular, Inc.
3. Alltel Mobile Communications, Inc. (Alltel)
4. American Mobile Telecommunications Association, Inc. (AMTA)
5. American Personal Communications (APC)
6. American Tel Group
7. Ameritech
8. AT&T Corporation (AT&T)
9. Bell Atlantic Mobile Systems, Inc. (Bell Atlantic)
10. BellSouth Corporation, BellSouth Telecommunications, Inc., BellSouth Cellular Corp. (BellSouth)
11. Cellnet Communications, Inc.
12. Cellnet of Ohio, Inc. (Cellnet of Ohio)
13. Cellular Service, Inc. and ComTech Mobile Telephone Company (CSI/ComTech)
14. Cellular Telecommunications Industry Association (CTIA)
15. Comcast Cellular Communications, Inc. (Comcast)
16. Connecticut Telephone and Communication Systems, Inc. (Connecticut Telephone)
17. E.F. Johnson Company (E.F. Johnson)
18. Frontier Cellular Holding Inc. (Frontier)
19. General Communication, Inc. (GCI)
20. General Services Administration (GSA)
21. Geotek Communications, Inc. (Geotek)
22. GTE Service Corporation (GTE)
23. Horizon Cellular Telephone Company (Horizon)
24. In-Flight Phone Corporation (In-Flight)
25. Information Technology Association of America (ITAA)
26. WorldCom, Inc. d/b/a LDDS WorldCom (LDDS)
27. MCI Telecommunications Corporation (MCI)
28. MobileMedia Communications, Inc. (MobileMedia)
29. MobileOne
30. Molasky, Andrew M.
31. National Telephone Cooperative Association (NTCA)
32. National Wireless Resellers Association (NWRA)
33. New Par
34. New York Telephone Company, New England Telephone & Telegraph Company, and NYNEX Mobile Communications Company (NYNEX)
35. Nextel Communications, Inc. (Nextel)
36. Pacific Telesis Mobile Services and Pacific Bell Mobile Services (Pacific)

37. Paging Network, Inc. (PageNet)
38. PCS Primeco, L.P. (PCS Primeco)
39. Personal Communications Industry Association (PCIA)
40. Rural Cellular Association (RCA)
41. Rural Cellular Coalition (RCC)
42. San Diego Cellular Communications, Inc.
43. SNET Cellular, Inc. (SNET)
44. The Southern Company (Southern)
45. Southwestern Bell Mobile Systems, Inc. (SBMS)
46. Sprint Telecommunications Venture (Sprint Venture)
47. Telecommunications Resellers Association (TRA)
48. Time Warner Telecommunications (Time Warner)
49. Vanguard Cellular Systems, Inc. (Vanguard)
50. Western Wireless Corporation (Western)
51. WJG Maritel Corporation (WJG Maritel)

Parties Filing Reply Comments

1. AirTouch
2. Allnet Communication Services, Inc. (Allnet)
3. AMTA
4. Ameritech
5. AT&T
6. Bell Atlantic NYNEX Mobile, Inc. (Bell Atlantic NYNEX)
7. BellSouth
8. Cable & Wireless, Inc. (Cable & Wireless)
9. People of the State of California and the Public Utilities Commission of California (California)
10. CSI/ComTech
11. CTIA
12. Connecticut Telephone
13. E.F. Johnson
14. GSA
15. Geotek
16. GTE
17. In-Flight
18. MCI
19. National Association of Regulatory Utility Commissioners (NARUC)
20. NWRA
21. New Par
22. Nextel
23. Pacific Bell Mobile Services (Pacific)

24. PageNet
25. PCS Primeco
26. PCIA
27. SNET
28. Southern
29. SBMS
30. Sprint Venture
31. TRA
32. U.S. AirWaves Inc. (U.S. AirWaves)
33. Vanguard
34. Waterway Communication System, Inc. (Watercom)

APPENDIX B**Final Regulatory Flexibility Analysis**

As required by Section 603 of the Regulatory Flexibility Act, 5 U.S.C. § 603 (RFA), an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the Second Notice of Proposed Rulemaking in this proceeding (*Second NPRM*). The Commission sought written public comments on the proposals in the *Second NPRM*, including on the IRFA. The Commission's Final Regulatory Flexibility Analysis (FRFA) in this *Second Report and Order* conforms to the RFA, as amended by the Contract With America Advancement Act of 1996, Pub. L. No. 104-121, 110 Stat. 847 (1996) (CWAAA).⁸³

I. Need for and Purpose of this Action:

In this decision, the Commission extends its existing rule under which cellular licensees are required to provide manual roaming service upon request to subscribers in good standing of any cellular carrier. Under the rule adopted in this decision, cellular, broadband personal communications services (PCS), and certain specialized mobile radio (SMR) licensees must provide manual roaming service upon request to subscribers in good standing of all such carriers, provided the subscriber is using a handset that is technically capable of accessing the licensee's system. This action will ensure that customers of all providers competing in the mass market for two-way, real-time, interconnected switched voice service have an equal opportunity to obtain manual roaming service, if they are using technically compatible equipment. In this way, the rule will promote the development of competition by ensuring that newer entrants to the market, as well as competitors without extensive affiliations, are not competitively disadvantaged by the inability of their subscribers to roam.

II. Summary of Issues Raised by the Public Comments in Response to the Initial Regulatory Flexibility Analysis:

No comments were filed in direct response to the IRFA. In general comments on the *Second NPRM*, however, several commenters raised issues that might affect small entities. Some of these commenters argued that the Commission should adopt a roaming rule in order to protect the ability of carriers without a nationwide footprint or extensive affiliations to compete. Other commenters, however, expressed concern that compliance with a requirement to offer roaming could be technically infeasible or unduly costly under some circumstances. In particular, several commenters urged the Commission not to require carriers to adopt particular technologies or modify their networks in order to facilitate roaming. Some commenters also argued that a roaming requirement could expose carriers to financial losses

⁸³ Subtitle II of the CWAAA is the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), codified at 5 U.S.C. §§ 601 *et seq.*